Engineer: Chris Samios	Date: 4/5/04	Raytheon JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Bruce Page	Date: 4/5/04				
Approved: CTS	Date: 4/5/04	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 4/14/04	Size: A	Dwg. #: **5961-291243-APP**	Rev: **A**	Sheet: 1 Of 2

APPLIES TO: Motorola/Nextel Model i50SX, i55SR, i58SX, i60C, i85S, i88S, i90C and i95CL Iden Cellphones (Cradle Connection)

RADIO MODIFICATIONS: None required.

RADIO PROGRAMMING: None required.

RADIO CONTROLS:

1. Turn the handset volume to 3/4 of maximum level as displayed on the indicator bar.

CABLING:

ACU-1000 Interface Top Level Assembly	JPS P/N 5961-291243
ACU-1000 Interface Cable	JPS P/N 5961-291242-00
Nextel Hands-Free Kit with Cradle	JPS P/N 5961-291244
ACU-T Interface Top Level Assembly	JPS P/N 5961-281243
ACU-T Interface Cable	JPS P/N 5961-281242-00
Nextel Hands-Free Kit with Cradle	JPS P/N 5961-291244

DSP PROGRAMMING:

RX Level	4	-4dBm
TX Level	6*	0dBm*
Squelch Type	VOX*	
COR Polarity	Active Low*	
High Frequency Equalizer	6	3.5dB Boost
RX Audio Delay	2*	100 ms*
TX Audio Delay (Radio Type)	4	800ms
Noise Reduction Value	0*	Off*
VOX/VMR Threshold	1*	Med1*
VOX/VMR Hang Time	3*	775 ms*
COR Inhibit After PTT	1*	100 ms*
All Others	As needed	

(* Indicates Default Value)

NOTES: **This handset cannot be left to operate unattended.**

1. The handset will revert to telephone mode after a time-out period of inactivity, and the operator will be needed to return the handset to Iden mode with the appropriate talk group selected.

2. When multiple talk groups are active, the handset will revert to the last active talk group and the operator will need to verify or select the desired talk group.

3. The handset models covered in these Application Notes will not pass DTMF, and therefore require an operator to manually complete all ACU-1000 or ACU-T interconnections.

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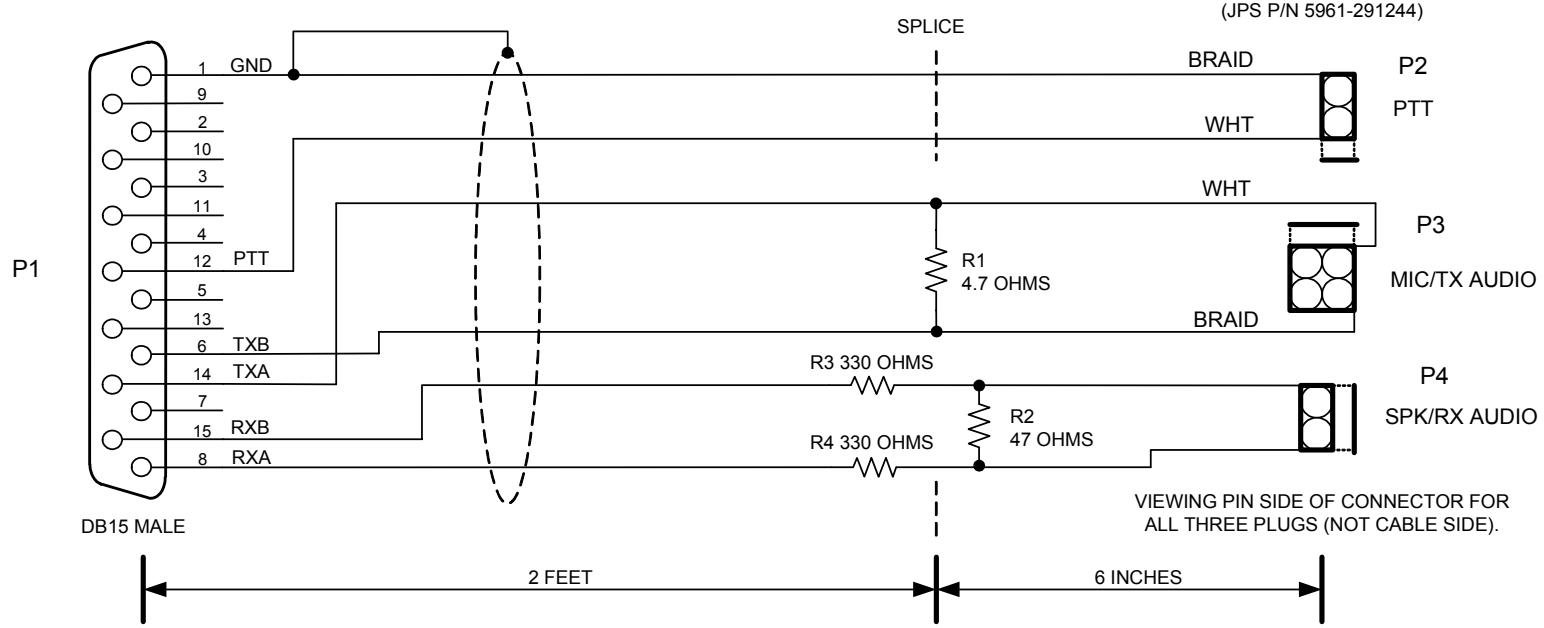
PURCHASED PART

CONNECT TO NEXTEL HANDS FREE KIT.
WORKS WITH NEXTEL RLN5612 CAR KIT.
(JPS P/N 5961-291244)



NOTES:
PLACE ALL COMPONENTS AND SPLICES INSIDE PLASTIC ENCLOSURE (JPS P/N 5961-271600).

FOR R1 USE JPS P/N 1820-047000.
FOR R2 USE JPS P/N 1820-470000.
FOR R3 AND R4 USE JPS P/N 1820-331000.

USED WITH:
MOTOROLA/NEXTEL i50SX CELLPHONE
MOTOROLA/NEXTEL i55SR CELLPHONE
MOTOROLA/NEXTEL i58SX CELLPHONE
MOTOROLA/NEXTEL i60C CELLPHONE
MOTOROLA/NEXTEL i85S CELLPHONE
MOTOROLA/NEXTEL i88S CELLPHONE
MOTOROLA/NEXTEL i90C CELLPHONE
MOTOROLA/NEXTEL i90CL CELLPHONE

THE TOP ASSEMBLY P/N BELOW INCLUDES BOTH HANDS-FREE KIT AND CABLE:
JPS P/N 5961-291243 (ALL MODELS).

NOTES: USE SHIELDED CABLE. CONNECT SHIELD DRAIN TO SHELL OF P1 ONLY.

REMOVE PLUGS AND 6 INCHES OF CABLE FROM CAR KIT'S SPEAKER, PTT SWITCH AND MIC. (PURCHASED FROM NEXTEL.) CUT EACH CABLE LEAVING A 6 INCH PIGTAIL WITH CONNECTOR, THEN SPLICE THE PIGTAILS INTO THE CABLE.

LABEL ALL CONNECTORS WITH P(NUMBER) AND FUNCTION (i.e. PTT, MIC, SPK).

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Drawn By: EDV	Title: CABLE, ACU-1000 TO NEXTEL i90 CELLPHONE		
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Rev	ECO	Date
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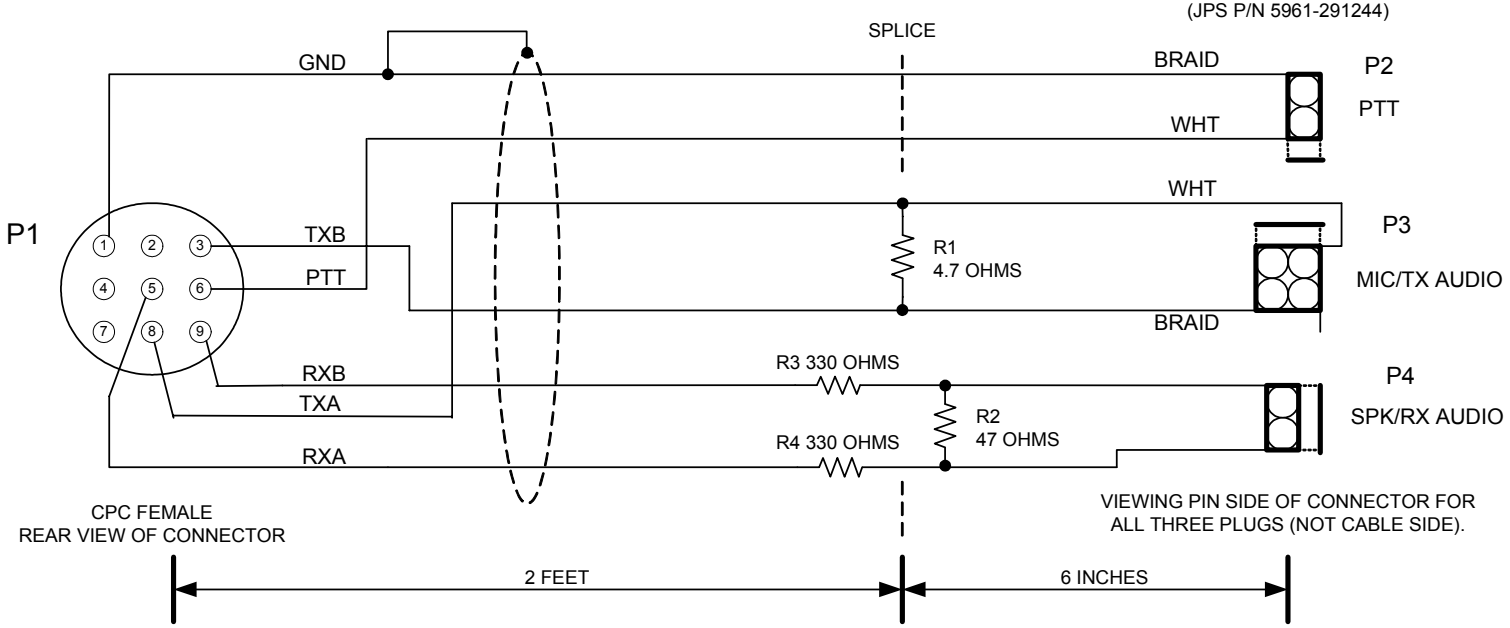
PURCHASED PART

USE MOLDED CABLE
(JPS P/N 5961-261003-00)

CONNECT TO NEXTEL HANDS FREE KIT.
WORKS WITH NEXTEL RLN5612 CAR KIT.
(JPS P/N 5961-291244)



NOTES:
PLACE ALL COMPONENTS AND SPLICES INSIDE PLASTIC ENCLOSURE (JPS P/N 5961-271600).

FOR R1 USE JPS P/N 1820-047000.
FOR R2 USE JPS P/N 1820-470000.
FOR R3 AND R4 USE JPS P/N 1820-331000.

USED WITH:
MOTOROLA/NEXTEL i50SX CELLPHONE
MOTOROLA/NEXTEL i55SR CELLPHONE
MOTOROLA/NEXTEL i58SX CELLPHONE
MOTOROLA/NEXTEL i60C CELLPHONE
MOTOROLA/NEXTEL i85S CELLPHONE
MOTOROLA/NEXTEL i88S CELLPHONE
MOTOROLA/NEXTEL i90C CELLPHONE
MOTOROLA/NEXTEL i90CL CELLPHONE

THE TOP ASSEMBLY P/N BELOW INCLUDES BOTH HANDS-FREE KIT AND CABLE:
JPS P/N 5961-281243 (ALL MODELS).

NOTES: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.

REMOVE PLUGS AND 6 INCHES OF CABLE FROM CAR KIT'S SPEAKER, PTT SWITCH AND MIC. (PURCHASED FROM NEXTEL.) CUT EACH CABLE LEAVING A 6 INCH PIGTAIL WITH CONNECTOR, THEN SPLICE THE PIGTAILS INTO THE CABLE.

LABEL ALL CONNECTORS WITH P(NUMBER) AND FUNCTION (i.e. PTT, MIC, SPK).

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